

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Raymond, Nebr.....	27	3-6 p. m.				Hail and rain.....	Corn washed out; truck gardens and strawberries damaged by hail.	Official, U. S. Weather Bureau.
Newberry, S. C.....	27	11 p. m.			18,000	Thunderstorm.....	Damage by lightning to cotton and cotton-mill equipment.	Do.
Rogers Mesa and Paonia, Colo.	28	1 p. m.	300		15,000	Heavy hail.....	Cherries, apricots, and possibly apples damaged.	Do.
Sedgwick County, Kans. (north part of).	28	9 p. m.	1,760		100,000	Severe hail.....	Growing wheat damaged, path 16 miles long.	Do.
Fort Stockton, Tex.....	29	5 p. m.	3,520		110,000	do.....	Extensive property and crop damage over path 10 miles long.	Do.
Carroll County, Ill.....	29	6 p. m.			22,830	Hail.....	Storm covered three distinct areas. Residences and greenhouses damaged; cattle and hogs injured; crops beaten.	Do.
Keokuk, Iowa and north of.....	29	P. m.				Hail and wind.....	Wind damage in city to small light buildings; damage to grapes by hail.	Do.
Paonia, Colo.....	30	2 p. m.			1,000	Hail.....	Injured cherries, apricots, and apples.	Do.
Menifee County, Ky.....	30				14,000	Electrical.....	Store destroyed.	Do.
Sideview, Ky. (near).....	30			1		do.....	House wrecked.	Do.
Alex and Bradley, Okla.....	30		2,640		20,000	Hail.....	Chief damage to crops.	Do.
Do.....	31		3 mi.			do.....	Damage included in that of the 30th.	Do.
Terre Haute, Ind. (near).....	31	1:28 p. m.		2		Thunderstorm.....	Two persons, a horse, and a dog killed by lightning.	Do.
Uniontown, Ark.....	31	6 p. m.		1		Wind and electrical.....	Several small buildings destroyed.	Do.
Jefferson County, Okla. (central part of).	31	6-7 p. m.	4 mi.			Heavy hail.....	Considerable damage; no estimate obtainable; path 30 miles.	Do.
Dallas, Tex., and vicinity.....	31	9:20 p. m.				Thunderstorm.....	Wires damaged by lightning; other property by wind; 2 persons injured.	Do.
Marion County, Ind.....	31		220		50,000	Tornadoic wind.....	Considerable property damage.	Do.
Princetown, Ohio (near).....	31					Hail.....	All crops over narrow strip injured.	Do.

* Includes damage at the same places on the 31st.

551.515 (73) STORMS AND WEATHER WARNINGS

WASHINGTON FORECAST DISTRICT

Storm warnings were issued in connection with only two storms during the month. The first were displayed from Nantucket, Mass., to Eastport, Me., at 9:30 p. m. of the 8th, because of a storm of considerable intensity that advanced north-northeastward from the vicinity of Bermuda to latitude 40° N. and then north-northwestward to Nova Scotia and eastern Maine. The other warnings were ordered from Atlantic City, N. J., to Eastport, Me., in connection with a disturbance of moderate intensity that advanced northeastward along the coast during the 16th-17th. Several stations reported maximum wind velocities of from 34 to more than 40 m. p. h. from the northeast.

Small craft warnings were displayed on portions of the east Gulf coast on the 6th and 11th, and on parts of the Atlantic coast north of Cape Hatteras on the 3d and 23d.

Frost warnings, almost entirely for the area from Kentucky eastward and northeastward, were issued on the 3d, 4th, 9th, 11th, 15th, 20th, 22d, 23d, 24th, and 26th. No general frosts occurred over the areas for which frost was forecast.—*C. L. Mitchell.*

CHICAGO FORECAST DISTRICT

Marked contrasts in temperature took place throughout the forecast district during May, there being both warm and cool periods. The temperature, on the whole, averaged above normal, except over eastern upper Michigan and most of the lower Michigan peninsula. They averaged considerably above the seasonal normal in the Great Plains States, and the greatest excess was 7.8° in eastern South Dakota. Record-breaking maxima were registered at several stations on the Great Plains.

The rainfall throughout the district was below the monthly normal, except in a few small areas, and the deficiency in the Mississippi and lower Missouri valleys was considerable.

The principal features of the weather were the high temperature and the deficient precipitation in the western portion of the district. There was naturally less storm movement than usual.

The month opened with a disturbance of moderate intensity central over the Great Plains and a high pressure area in the North Pacific region. These areas moved eastward, so that by the morning of the 2d the disturbance had reached the Upper Lakes and the high pressure the Canadian Northwest. Storm warnings were ordered on this morning for the Upper Lakes and small craft warnings for the Lower Lakes; and frost warnings for the Northwestern States and thence eastward across the upper Mississippi Valley. Frost warnings were issued on the 3d for the Upper Lake region and adjoining sections. The storm warnings were only partly verified, but frosts occurred as predicted.

On the morning of the 10th a low of considerable intensity, which had moved eastward from the Great Plains, was centered in the Ohio Valley, with a cold HIGH beyond the northern Rockies. Frost warnings were issued from the 10th to the 14th for the Northwestern States and eastward across the Upper Lake Region and adjoining sections; and the ensuing frosts were more or less general.

On the 18th general thunderstorms occurred over middle districts, accompanying the passage of a depression apparently of moderate energy. In the afternoon of that day a small tornado passed through Harvey, Ill., 22 miles south of Chicago. There was no loss of life, but damage to property amounted to about \$200,000. Showers and thunderstorms were predicted for the area in which the tornado occurred.

On the 19th the above-mentioned depression had moved northeastward to the Central Lakes Region and increased considerably in energy. A high-pressure area accompanied by comparatively low temperature was central over the Great Plains. Frost warnings were issued on that day for the Upper Lakes Region and adjoining areas; and frosts were reported generally from that area on the following morning.

On the night of the 20th storm warnings were ordered for all upper lakes stations, and on the morning of the 21st for the lower lakes, as a storm approached from the west. Warnings were continued on the Lower Lakes on the 22d, as the storm passed away very slowly down the St. Lawrence Valley. The warnings were partly verified, chiefly on Lakes Michigan and Huron.

Small-craft warnings were issued during the month for minor disturbances on the Great Lakes; and frost warnings for a few days during the latter half of the month for cranberry marshes in Wisconsin.

The special fire-weather forecast service for northern Michigan was resumed on the 18th; and fruit-spray forecast service for Door County, Wis., on the 4th. The fruit-spray forecast service was extended in lower Michigan on May 20 to include the Ann Arbor district; and the service for the southern portions of Illinois and Indiana, which was begun in April, was continued throughout the month.—*H. J. Cox.*

NEW ORLEANS FORECAST DISTRICT

Moderate weather prevailed over most of the district except that unusually heavy rainfall occurred locally. Small-craft warnings were issued for the Louisiana coast on one date and for the western portion of the Texas coast on two dates. No storm warnings were issued and no general storm occurred without warning. Frost was forecast for exposed localities in the northeastern portion of the district on the 15th; frost occurred in widely scattered localities. No general occurrence of frost without warnings was reported.—*I. M. Cline.*

DENVER FORECAST DISTRICT

Low pressures, attended by frequent showers and thunderstorms, with temperatures generally above normal, except in New Mexico, prevailed in southwestern Canada and most of the Rocky Mountain Region during the greater part of the month. From the 8th to the 14th, however, a HIGH from the north Pacific coast drifted slowly eastward and southeastward to the Plains States, and occasional frosts occurred in the northern and eastern portions of the district. Another HIGH advanced eastward on the 30th and frosts were reported from western Montana and northwestern Wyoming on the morning of the 31st.

Frost warnings, which were generally verified by the occurrence of frost or frost temperatures, were issued on the morning of the 1st for Montana and daily for some portion of the district during the period from the 7th to the 15th. Warnings for the higher valleys of western Colorado and the higher elevations of southern Utah were also distributed on the 25th and for the higher western valleys and extreme north-central Colorado and for Wyoming on the 31st.

At the request of the forest supervisor at Missoula, Mont., fire-weather forecasts for western Montana were begun on the 5th and continued throughout the remainder of the month. A forecast of strong winds, mostly westerly, was issued for New Mexico and Arizona on the 24th. A maximum velocity of 48 miles an hour from the south occurred at Albuquerque during the day of the 24th and again during the night of the 24th-25th, and a velocity of 40 miles an hour from the southwest was reported from the same station on the evening of the 25th.—*J. M. Sherier.*

SAN FRANCISCO FORECAST DISTRICT

The weather charts during the month of May showed rather unusual pressure formations for that month. Low pressure was persistent over the Aleutian Islands and the Gulf of Alaska and the HIGH, normally found off the California coast, was neither of its usual geographic magnitude nor was the pressure normal over the ocean where this semipermanent HIGH is charted. Semidaily

interpolated pressures for the intersection of north parallel of 32° and west meridian of 140° show that the pressure was materially below an assumed normal of 30.30 inches until after the 22d, when a rise to above normal pressure set in; thereafter the readings were above normal. This pressure situation was attended by frequent showers in Washington and Oregon, Idaho, and Nevada and by generally fair and warm weather in California. No storms of marked intensity visited the coastal regions of this forecast district. It was necessary to issue many forecasts of showers for the Pacific Northwestern States. Frost warnings were disseminated on a number of days in all States except California. The fire hazard in the forested areas of California became acute during the latter part of the month and necessitated warnings of low humidity and high temperature, which were issued well in advance of their occurrence. The month was the third successive one of which the average temperature at San Francisco exceeded those previously recorded during a period of more than 50 years.—*E. H. Bowie.*

627.41 (73) RIVERS AND FLOODS

By H. C. FRANKENFIELD

No rises of importance occurred during May. Virtually all cases in which the flood stage was exceeded represent continuations of floods already reported upon in the April number of this REVIEW.

A new river district with headquarters at Brownsville, Tex., will be established on June 1, 1926, comprising the drainage area of the Rio Grande below El Paso, Tex. This portion of the river was a part of the San Antonio, Tex., district, but the increasing importance of agricultural interests along the lower Rio Grande require special service that can best be supplied from Brownsville.

Flood stages during month of May, 1926

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC DRAINAGE					
Connecticut:	<i>Feet</i>			<i>Feet</i>	
White River Junction, Vt.-----	15	3	8	18.9	May 6.
Hartford, Conn.-----	16	(1)	8	20.8	Apr. 27.
MISSISSIPPI DRAINAGE					
Tippecanoe: Norway, Ind.-----	6	5	6	6.3	May 5.
		10	11	6.3	May 11.
Illinois:					
Peru, Ill.-----	14	(1)	6	19.4	Apr. 12-13.
Henry, Ill.-----	10	(1)	4	13.8	Apr. 14.
Havana, Ill.-----	14	(1)	8	17.6	Apr. 16-18.
Beardstown, Ill.-----	14	(1)	11	19.6	Apr. 17-18.
Pearl, Ill.-----	12	(1)	7	15.9	Apr. 15-19.
Canadian: Logan, N. Mex.-----	4			5.0	May 14.
				5.0	May 19.
				5.0	May 23.
				6.6	May 27.
Sulphur: Ringo Crossing, Tex.-----	20	9	9	21.3	May 9.
WEST GULF DRAINAGE					
Trinity:					
Dallas, Tex.-----	25	21	21	27.8	May 21.
Trinidad, Tex.-----	28	(1)	1	34.1	Apr. 28.
Liberty, Tex.-----	25	(1)	12	27.4	Apr. 30-May 1.
Rio Grande: San Marcial, N. Mex.-----	2	(1)	(3)	4.5	May 27-28.
PACIFIC DRAINAGE					
Colorado: Parker, Ariz.-----	7	(1)	(3)	9.5	May 31.
Gunnison: Delta, Colo.-----	9	6	6	9.3	May 6.
		22	28	9.8	May 25.
		31	31	9.0	May 31.

¹ Continued from last month.

² Continued at end of month.